

## CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS—Continued

District and station	Elevation of instruments			Pressure			Temperature of the air										Mean temperature of the dew point	Mean relative humidity	Precipitation			Wind					Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
	Barometer above sea level	Anemometer above ground		Station	Sea level	Departure from normal	Mean max. + min. +2	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total			Departure from normal	Days with 0.01 inch or more	Average hourly velocity	Prevailing direction	Maximum velocity										
																							Miles per hour	Direction	Date								
<b>Alaska</b>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Mbs.</i>	<i>Mbs.</i>	<i>Mbs.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	° <i>F.</i>	%	<i>In.</i>	<i>In.</i>		<i>Mi.</i>													
Anchorage <sup>1</sup>	132	6	44	-----	1,012.5	-----	54.3	+ 8	73	17	64	31	3	45	30	44	70	.86	+ 2	10	5.9	nw.	27	s.	2	2	10	18	-----	.0	.0	1	
Fairbanks <sup>1</sup>	455	4	63	-----	1,012.5	-----	58.6	+ 2	82	18	72	37	3	46	39	45	66	1.03	- 3	9	7.2	sw.	28	w.	19	1	12	17	7.4	.0	.0	4	
Juneau <sup>1</sup>	80	6	21	-----	1,016.6	-----	54.4	-----	80	15	64	34	2	45	44	74	3.04	-----	13	7.1	n.	24	e.	4	7	4	19	-----	.0	.0	0		
Nome	22	25	66	-----	1,013.9	-----	45.4	- 2	75	22	51	28	2	40	26	40	88	.85	- 3	8	8.1	w.	23	e.	18	0	8	22	8.1	T	.0	0	
Bethel	28	7	31	1,012.2	1,013.5	-----	53.2	+ 1	71	11	62	35	2	45	29	46	78	.91	- 2	7	8.5	nw.	24	-----	18	3	10	17	7.1	.0	.0	0	
Gambell	32	5	32	1,013.5	1,014.6	-----	37.2	- 1.3	53	26	41	25	4	33	16	35	93	.57	+ 1	9	11.0	sw.	38	ssw.	18	0	3	27	9.0	.0	.0	0	
Kotzebue	20	5	31	1,013.5	1,013.9	-----	43.4	- 3	71	22	49	26	6	38	25	40	88	.80	+ 4	8	-----	-----	-----	-----	1	7	22	8.2	T	.0	.0	0	
McGrath	331	5	31	1,001.0	1,013.5	-----	57.3	-----	79	21	67	39	10	48	31	46	70	2.17	-----	13	-----	-----	24	ssw.	2	0	11	19	7.9	.0	.0	2	
Northway	1,718	5	32	950.9	-----	-----	56.8	-----	82	14	69	32	1	45	37	43	65	2.27	-----	14	6.7	nw.	27	-----	10	1	16	13	6.9	.0	.0	5	
Summit	2,405	5	30	929.6	1,016.6	-----	49.8	-----	70	20	59	32	1	41	28	42	76	2.24	-----	9	-----	-----	-----	-----	0	10	20	8.4	.0	.0	0		
<b>Hawaiian Islands</b>																																	
Honolulu	38	86	100	1,015.9	1,016.6	-----	76.4	- 2	82	7	80	70	7	72	12	-----	-----	.46	- 5	12	9.4	E.	28	E.	1	9	12	9	5.6	.0	.0	0	

<sup>1</sup> Data are airport records.<sup>2</sup> Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.<sup>3</sup> Observations taken bihourly.<sup>4</sup> Pressure (adjusted to old city elevation) temperature and hygrometric data from airport; otherwise city office records.<sup>5</sup> Temperature and precipitation from city office records, other data from airport.

NOTE.—Except as indicated by notes 1, 2, 4, and 5 data in table are city office records.

## SEVERE LOCAL STORMS, JUNE 1944

[Compiled by Callie E. Rhodes]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Dodgeville, Wis., vicinity of.	1	5-7 a. m.	-----	1	-----	Lightning	1 man killed by lightning and 2 others badly shocked.
Barnwell County, S. C.	1	P. m.	-----	1	-----	do	Man killed while working in field.
Rockville, Ind., vicinity of.	1	4:30 p. m.	11	0	\$3,500	Hail	Crop damage, \$3,000; property damage, \$500.
Ainsworth, Nebr., vicinity of.	2	3 p. m.	13	0	Unestimated	do	Rye and corn damaged, requiring some replanting of corn.
Bennet and Fullerton, Nebr., vicinity of.	3	2:30-5:45 p. m.	-----	0	\$10,500	Wind squall and hail	30 percent loss to crops over a limited area in vicinity of Bennet; value of property destroyed, \$500. Near Fullerton corn and small grain damaged; gardens completely ruined; some windows broken and roofs damaged. Property damage estimated at \$10,000.
Lakefield, Minn., vicinity of.	3	4:45 p. m.	53	0	\$5,000	Thundersquall	Buildings on 2 farms were wrecked; trees uprooted; growing crops slightly damaged.
Minneapolis, St. Paul, Milaca, Morris, Campbell, Wheaton, St. James and vicinity, Minn.	3-4	-----	-----	0	\$300,000	Heavy rain	Flooded lowlands, highways, roads, streets and basements; telephone and power lines down; growing crops damaged; losses to merchandise, machinery and other equipment in basements; streetcars burned out by sand and water and from being struck by lightning.
Nicollet, Hennepin, and Ramsey Counties, Minn.	4	P. m.	-----	0	\$34,000	Hail	Considerable damage to real property and growing crops.
Between Kimbrae and Heron Lake, Minn.	4	3 p. m.	880	1	\$60,000	Thundersqualls	Houses, barns, outbuildings, silos and windmills were demolished or damaged on at least 12 farms; many trees uprooted; a 20,000-bushel grain elevator was wrecked; some livestock and poultry perished. 3 persons were injured, 1 fatally.
Nicollet, Waseca, Hennepin, Ramsey and Washington Counties, Minn.	4	P. m.	-----	0	\$80,000	do	Many roofs of buildings and chimneys were damaged; windows broken; poles and wires down; many trees uprooted. 1 person injured.
Fort Wayne, Ind.	5	-----	-----	0	\$3,000	Wind	Trees down; some buildings damaged.
Uvalde, Tex., vicinity of.	6	A. m.	11	0	Unestimated	Tornado	1 person injured. 1 ranch house, several small buildings and windmills damaged.
Warrenton, Va., vicinity of.	6	P. m.	-----	0	\$30,000	Electrical	Chicken hatchery damaged and chickens killed.
Haiger, Nebr., vicinity of.	7	4-6 p. m.	110	0	\$20,000	Hail and heavy rain	Damage to crops estimated at \$20,000, besides some damage to trees and small buildings.
Scotts Bluff and Morrill Counties, Nebr.	7	3-5 p. m., C. W. T.	12-3	0	\$35,000	Hailstorm	Storm moved from northwest to southeast. Alfalfa, sugar beets, barley and other small grains damaged; beans and corn required replanting in places.
Chaves, Curry and Roosevelt Counties, N. Mex.	10	P. m.	11-7	0	\$27,500	Wind and hail	Damage from heavy hail considerable at Melrose and Hagerman; damage from wind and hail at Roswell estimated at \$2,500, and from hail at Portales estimated at \$25,000.
Lake, Blaine, Fergus, Carbon, Valley Counties, Mont.	11	5-11 p. m.	114-4	0	\$27,000	Hail and rain	Winter wheat, alfalfa, gardens and fruit damaged. In Valley County loss in wheat, beets and alfalfa 30 to 75 percent.
Putnamville, Ind., vicinity of.	12	P. m.	-----	0	\$1,500	Wind	Buildings damaged; trees down.

<sup>1</sup> Miles instead of yards.

## SEVERE LOCAL STORMS, JUNE 1944—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Eastern Scotts Bluff and western Morrill Counties, Nebr.	12	3:30-5 p. m., C. W. T.	1-4	0	\$40,000	Hailstorm	Principal loss to alfalfa, sugar beets, and small grains. Some alfalfa 18 inches high reduced to stubble 3 inches high. This was the second hailstorm in approximately the same area, the first occurring on June 7.
Fallon and Chouteau Counties, Mont.	12	1-7 p. m.		0	Unestimated.	Hail	Damage to gardens and grain estimated at \$2,000 in Fallon County; damage to wheat in Chouteau County up to 100 percent.
Hazel Green, Wis.	12	5 p. m.		1		Lightning	17-year old girl killed by lightning near Hazel Green, Grant County.
Lamar, S. C.	13	Night		0	\$45,000	do	Warehouse and 349 bales of cotton burned; also residence struck and burned.
Syracuse, Nebr., vicinity of.	13	10 p. m.	1-4	0	\$100,000	Wind and hail	Complete loss of wheat and oats in hail area.
San Jon Valley and Tucumcari, N. Mex.	14	Noon to 10 p. m.	1-3-4	0	\$55,000	Hail	Poultry killed and wheat crops damaged.
Terre Haute, Ind.	14			0	\$1,000	Wind	Trees and wires down; some plate glass broken.
Judith, Basin, Fergus, and Rosebud Counties, Mont.	14	P. m.	1-2	0	\$4,500	Hail	Gardens and winter wheat damaged.
Yellowstone County, Mont.	14-16	P. m.	1-3	0	\$61,000	Hail and rain	A series of storms occurred in the Huntley, Billings, and Shepherd area, damaging 1,000 acres of beets, 300 acres of truck crops, 5,000 acres of beans, peas, alfalfa, and grains; estimated loss \$60,000. Loss from broken windows and poultry estimated at \$1,000.
Milwaukee, Wis., vicinity of.	15	9:00-10:00 p. m.		0	\$38,000	Thundersquall	30 people injured at Borchert Field; nearby houses and utility wires damaged; windows broken. Property damage \$25,500. In southern Door County a barn, granary, machine shed, 2 silos destroyed and other buildings damaged. Estimated property damage, \$10,000; estimated damage to cherry and apple trees, \$2,500.
Le Center, Minn., and vicinity.	15			0	\$20,000	Heavy rain	Heavy to excessive rains that accompanied a severe thunderstorm flooded lowlands and damaged growing crops.
Musselshell and Wheatland Counties, Mont.	15	7-9 p. m.	1 1/4-10	0	\$38,000	Hail	Damage to wheat and alfalfa.
Albion, N. Y., vicinity of.	16			0	Unestimated.	Hailstorm	Tree-fruit damaged.
Peru, N. Y., vicinity of.	16		1 1/4	0	do	do	Apples damaged.
Onondaga County, N. Y.	16			0	\$20,000	Thunderstorm	Underpasses and cellars flooded in Syracuse, power and communication lines broken, and trees blown down. Near North Syracuse 2 barns were fired by lightning.
Lincoln, Turner, and Union Counties, S. Dak.	16	4-5 p. m.		0	\$250,000	Wind	Numerous farm buildings, church, windmills, and farm machinery wrecked; great number of stock and poultry killed; several people injured.
Stillwater, Gallatin, Golden Valley, Dawson, McCone, and Prairie Counties, Mont.	16	3 p. m.-midnight	1 1/4-10	0	\$340,500 or over.	Hail, wind, and rain	In Dawson and McCone Counties all crops damaged; estimate \$250,000; damage to property estimated at \$80,000. In other counties damage was to gardens, beans, alfalfa, beets, wheat, and other small grain crops.
Dawson County, Mont.	16-17			2	Unestimated.	Torrential rain, hail, and tornadic wind.	At Intake the wind reached almost tornadic proportions and damaged every building in the town. Grain bins were smashed and every home more or less flooded. In the Retah and Bloomfield district hail leveled most of the crops and many barns and buildings were damaged by wind or flood; some sheep and livestock lost. Two small children drowned on Burns Creek as the trailer house in which the family lived floated from its location.
Beadle, Faulk, Brown, Codington, Day, Grant, and Roberts Counties, S. Dak.	17	5-6 p. m.		13	do	Wind	Residences, farm buildings, farm machinery, power and telephone lines wrecked; trees uprooted; great number of stock and poultry killed. 13 people killed and more than 50 injured. Damage estimated at several hundred thousand dollars.
Milwaukee, and Rock, Walworth, and Racine Counties, Wis.	17	3:00-5:30 a.m.		0	\$12,000	Thunderstorms	Utility service interrupted in whole area; highways blocked by fallen trees in the Racine area, and light and power poles broken. At Sturtevant Airport, Racine, 3 airplanes damaged; a large barn blown down in the Racine area, and several silos blown down in the Burlington area. In Walworth County, many prime cherry trees loaded with a bumper crop were broken down.
Dexter, Minn., and vicinity.	17	1:30 a.m., CWT	1-3	0	\$45,000	Thundersqualls	3 barns and several silos demolished; poles and wires down; many trees uprooted; growing crops damaged.
Minneapolis, St. Paul, Minn., and vicinity.	17	P.m.		0	\$5,000	do	Buildings were damaged, windows broken, poles and wires down, and trees uprooted.
Beardsley and Graceville, Minn., vicinities of.	17	6:30 p.m. CWT		0	\$250,000	Tornado	Many farm buildings wrecked or damaged; poles and wires down; some livestock and poultry killed; growing crops damaged; four persons injured.
Trempealeau, Jackson, Wood, Portage, and Winnebago Counties, Wis.	18	P.m.		0	\$100,000	Hailstorms	Damage greatest in Wood and Portage Counties, where the stones were reported up to the size of baseballs and softballs. At Stevens Point 3 greenhouses and 2,500 panes of glass broken. Many windows in schools, churches, and homes broken, roofs riddled, automobiles dented, crops and shrubbery beaten down, and fruit beaten off trees. Total property damage estimated at \$25,000 and crop damage at \$75,000.
Juneau, Outagamie, Trempealeau, Jackson, Wood, Portage, Waupaca, and Winnebago Counties, Wis.	18	P.m.		2	\$186,000	Windstorms	Damage was greatest in Wood and Portage Counties. At Stevens Point, scarcely a house escaped some damage, mostly to roofs and windows; many streets blocked by fallen trees and live wires. Considerable damage occurred in Winnebago County, largely to farm buildings. Two persons were drowned on Lake Winnebago when their motorboats capsized; 12 persons injured. At least 4 houses, 25 barns, and many smaller buildings were destroyed or severely damaged; several livestock killed. Property damage estimated at \$136,000, crop damage \$50,000.
West-central Portage County, Wis.	18		1 3/4	0	\$105,000	Tornado	3 houses, 20 barns, many smaller buildings, and farm machinery were wrecked; many other buildings damaged; several domestic animals killed. Property damage estimated at \$100,000, and crop damage at \$5,000.
Onondaga County, N. Y.	19		1 1/2	0	\$50,000	Thunderstorm and hail.	A thunderstorm, accompanied by hail, caused damage to field crops estimated at \$50,000.

1 Miles instead of yards.

## SEVERE LOCAL STORMS, JUNE 1944—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
The East.....	19	Night.....		1		Heavy thunderstorm..	1 person killed by lightning near Port Jefferson, N. Y. Many points struck by lightning in New Jersey. A huge oil tank at Linden set on fire; telephone and railroad signal lines were down at many points. Farm crops and gardens injured by rain. Damage estimated at thousands of dollars was sustained in the Washington area. In an earlier storm 10 cows at the Department of Agriculture, Beltsville Research Center, Maryland, had been killed by lightning.
Marlboro County, S. C....	19	8:30 p.m.....		0	\$15,000.....	Hail.....	Damage to crops, estimated at \$15,000.
Fergus County, Mont....	19	6:00 p.m.....	1 3/4-2	0	\$5,250.....	do.....	Damage to gardens and wheat.
Amelia, Va., vicinity of...	19	5:00 p.m.....		0	\$10,000.....	do.....	Damage to tobacco.
Midland, Va., vicinity of...	19	8:00 p.m.....	1 2	0	\$10,400.....	do.....	Damage to crops estimated at \$8,400; damage to property, \$2,000.
Virginia, southern and southwestern portions.	19	1:00-4:00 p. m.....	1 1-10	0	\$54,200.....	Hail and wind.....	Damage to corn, small grain, tobacco, and fruit vicinity of Chatham estimated at \$20,000; damage to corn, tobacco, buildings near Halifax, \$4,200; damage to crops and property near Hillsville, \$30,000.
Winchester, Va., vicinity of.	19	8:30-10:30 a. m.....	900-1,320	0	\$585,000.....	Hailstorms and wind..	\$510,000 damage to fruit crops; \$50,000 damage to trees; \$25,000 damage to property.
Chouteau and Wibaux Counties, Mont.	20	2:00 p. m.....	1 3	0	\$15,000.....	Hail.....	Damage to wheat and barley.
Powder River, Ravalli, and Silver Bow Counties, Mont.	21	3:00-7:00 p. m.....	1 3-10	0		do.....	Damage to grains, potatoes, and gardens in Powder River County considerable. Damage to apples in Ravalli County estimated at \$500. Damage to real property in Silver Bow County estimated at \$10,000.
Southern half of Pawnee County, Nebr.	21	7:30 p. m., CWT.....	1 1-4	0	Unestimated.	Heavy hail, and a small probable tornado.	Winter wheat and gardens severely damaged in affected area; many windows were broken, a barn and some small buildings were destroyed. The crop damage was so great it is impossible to estimate.
Grant and Lafayette Counties, Wis.	22	6:30 p. m.....	1 1	7	\$1,023,000.....	Tornado.....	6 people killed at or near Belmont and 1 near Gratiot; 75 people injured, mostly in the Belmont area; 25 homes, 61 barns, 3 cheese factories, and many smaller buildings destroyed; many livestock killed. Property damage estimated at \$1,000,000, crop damage at \$23,000.
Wood County, Wis.....	22	9:30 p. m.....	1 1/2	0	\$40,000.....	do.....	Five barns destroyed and several others damaged; many homes damaged. A cow and 100 chickens killed; utility service disrupted. Property damage estimated at \$15,000, and crop damage at \$25,000.
Grant and Lafayette Counties, Wis.	22	7:30 p. m.....	1 1/2-2	0	\$8,000.....	Hailstorm.....	Damage to crops estimated at \$8,000; damage to buildings slight.
Minnesota, southeastern portion.	22	3:30 p. m.-12 midnight.	1 7	0	\$3,176,000.....	Thundersquall (possibly tornado) and hail.	Much damage from hail to neon signs, windows, roofs, sidings, and automobile tops; 10 airplanes were damaged; growing crops damaged severely; several thousand chickens were killed; some hogs perished. More than 60 barns, outbuildings, silos, and windmills demolished by a small tornado; poles and wires down; growing crops damaged; some livestock killed; 2 people injured.
Belmont, Wis., vicinity of.	22	Night.....	1 3	9		Tornado.....	The tornado struck two border counties in Wisconsin and Illinois. 6 persons killed in Lafayette County, Wis., and 3 in Stephenson County, Ill., and an unknown number injured. Damage to property was estimated at thousands of dollars, with estimates of more than 100 homes and farm buildings leveled; heavy losses in livestock.
Big Horn County, Mont.	23	7:00 p. m.....	1 6	0	\$10,000.....	Hail.....	Damage to crops.
Greene, Hawkins and Washington Counties, Tenn.	23	8:00-9:00 p. m.....		0	Unestimated.	Tornado.....	13 homes and 60 other buildings destroyed, 27 homes and 90 other buildings damaged. 3 persons injured.
Fredonia, Pa., vicinity of.	23	5:20 p. m.....	100	0	\$10,000-\$15,000	Windstorm.....	A few buildings destroyed or damaged a few miles east of Fredonia, Pa. 1 person injured.
Gate City, Va., vicinity of.	23	6:00 p. m.....		0	\$3,000.....	Wind and hail.....	Damage to corn, tobacco, and gardens.
Southwestern Pennsylvania, northern West Virginia, Eastern Shore, and Garret County in western Maryland.	23	Night.....	166-333	159	\$5,000,000.....	Tornadoes, series of...	The tornadoes moved from northwest to southeast in nearly parallel paths. There were 4 main paths of destruction and 1 intermediate one. Of the 159 lives lost, 4 were in Maryland, 45 in Pennsylvania, and 110 in West Virginia. More than 1,000 persons injured throughout the stricken area. At McKeesport, Pa., 110 houses leveled; two 355-foot transmitter towers of radio station WCAE at Pittsburgh blown down. Many workers injured when sections of roof of steel mills at McKeesport were blown off; more than 50 persons injured at Waynesboro, Pa. The small town of Chartiers, Pa., was virtually wiped out; 58 killed and 100 injured at Shinnston, W. Va., which was the hardest hit point. The storm took its heaviest Pennsylvania toll around Chartiers and Clarksville, 40 miles south of Pittsburgh, and at communities within 20 miles of Pittsburgh. Dwellings, farm buildings, and other structures demolished; streets and highways littered with wreckage; communication lines cut. The storm hit Maryland on the Eastern Shore and in Garret County in the west portion. Property damage in Maryland alone about \$1,000,000.
Dickeyville, Wis., vicinity of.	26	Noon.....		0	\$5,500.....	Thunderstorm.....	A farmhouse, barn, and silo destroyed; several hundred chickens killed; communication lines disrupted; crops beaten down.
Hector, Minn., vicinity of.	26	5:00 p. m.....	1 3	0	\$25,000.....	Thundersquall.....	Several farm buildings were damaged; two hangars were demolished at the airport, which caused loss of one airplane and damage to another.
Coahoma, Howard County, Tex.	28	P. m.....	1 2	0		Hail and wind.....	Cotton in the storm area was damaged 60% to 70%. Accompanying wind damaged many small farm buildings.
Spartanburg, S. C., vicinity of.	30	4:00-6:00 p. m.....	1 1/2	0	\$10,000.....	Hail.....	Damage to crops.
Chouteau County, Mont.	30	7:00 p. m.....	1 2	0	\$5,000.....	do.....	Damage to wheat, oats, and barley.

1 Miles instead of yards.